

Applicant : Stephen E. Allen et al.  
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Attorney's Docket No.: 15845-004001

Amendments to the Claims:

This listing of claims replaces all prior versions and listings of claims in the application:

Listing of Claims:

1. (Currently Amended) A disposable liquid chromatography cartridge for separating a chemical contained in a solution comprising  
a vessel having an inlet and outlet, and  
a monolith chromatography stationary phase inside said vessel,  
said vessel having a flexible wall that is deformable by externally applied force so as to reduce a volume within said vessel.
2. (Original) The cartridge of claim 1 wherein said vessel is tubular.
3. (Original) The cartridge of claim 2 wherein said vessel is cylindrical.
4. (Original) The cartridge of claim 1 wherein said flexible wall is made of plastic.
5. (Original) The cartridge of claim 1 wherein said monolith chromatography stationary phase is formed within said vessel.
6. (Original) The cartridge of claim 1 wherein said monolith chromatography stationary phase is preformed and thereafter inserted into said vessel.
7. (Original) The cartridge of claim 1 wherein said monolith chromatography stationary phase is a material selected from the group consisting of methacrylates, agarose based materials, cellulose, acrylamides, polystyrene divinyl benzene and silica based materials.
8. (Withdrawn) Chromatography apparatus for separating a chemical contained in a solution comprising  
a vessel having a flexible wall that deforms in response to externally applied pressure so as to reduce a volume within said vessel,  
a monolith chromatography stationary phase inside said vessel, and

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a wall deflector that deflects said flexible wall so as to reduce the volume within said vessel.

9. (Withdrawn) The apparatus of claim 8 wherein said wall deflector includes an outer pressurizable chamber, and said vessel is mounted within said chamber such that said flexible wall is exposed to increased fluid pressure within said chamber.
10. (Withdrawn) The apparatus of claim 8 wherein said wall deflector includes a mechanical member that applies force to said flexible wall to deform said flexible wall.
11. (Withdrawn) The apparatus of claim 8 wherein said vessel is tubular, said flexible wall extends around a periphery of said vessel.
12. (Withdrawn) The apparatus of claim 8 wherein said wall deflector includes a clamping structure that applies force to said wall at a plurality of locations around said periphery.
13. (Withdrawn) The apparatus of claim 8 wherein said monolith chromatography stationary phase is a material selected from the group consisting of methacrylates, agarose based materials, cellulose, acrylamides, polystyrene divinyl benzene and silica based materials.
14. (Withdrawn) A method of separating a chemical contained in a solution comprising  
providing a vessel having a flexible wall, and inlet and outlet, and a monolith chromatography stationary phase inside said vessel,  
supplying said solution under pressure to said inlet,  
applying external force to said flexible wall to deform said flexible wall, and  
removing separated solution from said outlet.
15. (Withdrawn) The method of claim 14 wherein said applying external force includes exposing said flexible wall to increased fluid pressure within a pressurizable chamber.
16. (Withdrawn) The method of claim 14 wherein said applying external force includes applying force via a mechanical member.
17. (Withdrawn) The method of claim 16 wherein said vessel is tubular, said flexible wall extends around a periphery of said vessel, and said mechanical member includes a clamping structure that applies force to said wall at a plurality of locations around said periphery.

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18. (Withdrawn) The method of claim 14 wherein said monolith chromatography stationary phase is a material selected from the group consisting of methacrylates, agarose based materials, cellulose, acrylamides, polystyrene divinyl benzene and silica based materials.
19. (Withdrawn) A method of making a disposable chromatography cartridge for separating a chemical contained in a solution comprising
  - providing a vessel having an inlet and outlet and a flexible wall that is deformable by externally applied force so as to reduce a volume within said vessel, and
  - providing a monolith chromatography stationary phase inside said vessel.
20. (Withdrawn) The method of claim 19 wherein said providing a monolith chromatography stationary phase includes forming said monolith chromatography stationary phase within said vessel.
21. (Withdrawn) The method of claim 19 wherein said providing a monolith chromatography stationary phase includes preforming said monolith chromatography stationary phase outside of said vessel and thereafter inserting said monolith chromatography stationary phase into said vessel.
22. (Withdrawn) The method of claim 14 wherein said monolith chromatography stationary phase is a material selected from the group consisting of methacrylates, agarose based materials, cellulose, acrylamides, polystyrene divinyl benzene and silica based materials.